

ROMANYCHEVA, O.D.

Causes of fluctuations of bream catches in the Aral Sea.
Vop. ikht. no.11:44-47 '58. (MIRA 12:1)

1. Azovskoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo
instituta morskogo rybnogo khozyaystva i okeanografii.
(Aral Sea--Bream)

ROMANYENKO, A.

"Adjustment of Weight Proportions on the Basis of Loss in Dust Suspended in the Air", Tr. From Russian, P. 18, (KOHASZATT LAPOK, Vol. 9, No. 1, January 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL), IC, Vol. 4, No. 3, March 1955, Uncl.

ROMANYUGIN, I.P. (Moscow)

Cancer of the ovaries. Fel'd. i akush. 23 no.7:24-27 J1 '58
(MIRA 11:8)

(OVARIES--CANCER)

ROMANYUK, Anna Andreyevna, inzh.; KOCHERGIN, A.D., red.; SKOROBOGACHEVA,
A.P., red. izd-va; ZEP, Ye.M., tekhn. red.

[Manual on oxygen technology; manual for the training of
industrial workers and technicians] Apparatchik kislorodnoi
ustanovki; uchebnoe posobie dlia proizvodstvenno-tekhnicheskogo
obucheniia rabochikh. Sverdlovsk, Gos. nauchno-tekhn. izd-vo
lit-ry po chernoi i tsvetnoi metallurgii. Sverd. otd-nie, 1959.
216 p. (MIRA 12:7)

(Oxygen)
(Chemical engineering--Equipment and supplies)

ROMANYUK, A.F.

Hydrogeological conditions of the southeastern part of the
cis-Carpathian fault, the adjacent regions of the Podolian
tableland, and the Skiba Carpathians. Trudy VNIIGI no.12:
413-422 '58. (MIRA 12:3)
(Carpathian Mountain region--Water, Underground)
(Petroleum engineering)

ROMANYUK, A.F.

Hydrogeological regionalization of the cis-Carpathian region and some problems in the utilization of underground waters for water supply. Geol. zhur. 25 no.2:83-89 '65. (MIRA 18:6)

1. Ukrainskiy nauchno-issledovatel'skiy gornorudnyy institut.

ROMANYUK, A.F.

Formation of the chemical composition of the underground waters
of the oil and gas fields of the cis-Carpathian region. Trudy
UkrNIGRI no.5:166-175 '63. (MIRA 18:3)

ROMANYUK, Aleksandr Ivanovich[Romaniuk, O.I.]; OLEFIRENKO, G.A.
[Olëfirenko, H.A.], red.; NEMCHENKO, I.Yu., tekhn. red.

[Harvest corn with machines only] Zbyraty kukurudzu
til'ky mashynamy. Kyiv, Derzhsil'hospvydav URSR, 1962. 29 p.
(MIRA 16:4)

1. Mekhanizator kolkhoza "Nove zhittya" Skadovskogo rayona
Khersonskoy oblasti (for Romanyuk).
(Ukraine--Corn (Maize))--Harvesting)

BOROVYY, Ye. M.; KHIMICH, M. G.; ROMANYUK, A. I.

Closed injury of the abdomen with rupture of the head of the pancreas and the common bile duct. Nov. khir. arkh. no.2:67-68 '62.
(MIRA 15:2)

1. Rovenskaya uchastkovaya bol'nitsa i khirurgicheskoye otdeleniye
(zav. - Ye. M. Borovyy) Rovenskoy oblastnoy bol'nitsy.

(PANCREAS--WOUNDS AND INJURIES)
(BILE DUCTS--WOUNDS AND INJURIES)

Significance of electrode distances as a factor increasing the current efficiency. A. J. Romanyuk (Aluminum Plant, Dnepropetrovsk). *Tsvetn. Metall.* 29, No. 7, 55-8 (1958). — The effect of the distances between the electrodes in an Al bath is considerable. It may be due to the contaminated surface of the electrodes, to the differences in the flow of the molten electrolyte, and to the accumulation of residues on the bottom of the cell. Means of reducing these conditions are suggested. I. Bencowitz

2

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ROMANYUK, A.I.

Interpolar gap values as factors in increasing output per
current capacity. TSvet. met. 29 no.7:55-58 J1 '56. (MLRA 9:10)

1. Dneprovskiy alyuminiyevyy zavod.
(Aluminum--Electrometallurgy)

ROMANYUK, A.F.

Hydrogeology of the Glebovka gas field. Trudy UkrNIGRI
no.7:63-68 '63. (MIRA 19:1)

HOZENSHTRAKH, M.K.; ROMANYUK, A.F.; FISHER, Ye.L.; VAYL', T.I., red.;
LAVRENOVA, N.B., ~~tekh. red.~~

[Practices in the Vladivostok Harbor] Opyt raboty Vladivostok-
skogo porta. Moskva, Izd-vo "Morskoi transport," 1958. 55 p.
(MIRA 12:11)

(Vladivostok--Harbors) (Cargo handling)

SHTOGAIN, Ol'ga Dmitriyevna [Shtohryn, O.D.]; GAVRILENKO, K.S.
[Havrylenko, K.S.], retsenzent; ROMANYUK, A.F., retsenzent;
PORFIR'YEV, V.B., akademik, nauchnyy red.; SERDYUK, O.P.,
red.; LISOVETS', O.M. [Lysovets', O.M.], tekhn. red.

[Underground waters of Quaternary sediments in the cis-
Carpathian region] Pidzemni vody chetvertynnykh vidkladi
Peredkarpattia. Kyiv, Vyd-vo AN URSR, 1963. 137 p.
(MIRA 16:12)

1. Akademiya nauk Ukr.SSR (for Porfir'yev).
(Carpathian Mountain region--Water, Underground)

TKACHUK, V.G.; ROMANYUK, A.F.

Hydrogeological characteristics of the subsurface underthrust
fold in the Borislav field. Neft. i gaz. prom. no.2:7-13 Ap-Je
'62. (MIRA 15:6)

1. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy
institut.

(Borislav region--Water, Underground)
(Borislav region--Folds (Geology))

EWB(k)/FEO/ENG(r)/EWT(1)/EWT(m)/EEC(k)=2/EMP(j)/EEC(t)/T/REC(L)=2/
 EMP(k)/EWA(m)=2/EWA(h) PA-4/PB-4/PC-4/PO-4/PP-4/PR-4/PB-4/PA-4/PL-4 SCTB/IJF(a)
 RG/EM

ACCESSION NR: AP5010522

UR/0056/65/048/004/1202/1204⁶⁷

AUTHOR: Akhmanov, S. A.; Kovrigin, A. I.; Kulakova, N. K.; Romanyuk,
 A. K.; Strukov, M. M.; Khokhlov, R. V.

TITLE: The threshold and line-intensity of stimulated Raman scatter-
 ing in liquids

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48,
 no. 4, 1965, 1202-1204

TOPIC TAGS: stimulated Raman scattering²¹, Raman scattering threshold,
 Raman scattering line intensity

ABSTRACT: Stimulated Raman scattering (SRS), at which coherent
 oscillation of molecules of the scattering medium is generated, has a threshold
 $\beta_{ci}E_0^2 \geq \delta_{ci}$, where E_0 is the field intensity of the incident wave,
 (frequency ω_0), β_{ci} is a value determined by the polarization of the
 molecule of the scattering medium at frequency $\omega_0 - \Omega = \omega_{ci}$ (Ω is the
 natural frequency of molecular oscillation), and δ_{ci} is the absorption
 coefficient of the medium at ω_{ci} frequency. Experiments on the
 excitation of SRS were performed with organic liquids (benzene) and

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L 49442-65

ACCESSION NR: AP5010522

cyclohexane) in order to establish the factors which determine the value of the threshold and line intensity in ranges shorter than that of ruby laser ($\lambda_0 \approx 0.69\mu$). The second harmonic of a neodymium glass laser ($\lambda_0 = 0.53 \mu$) was used to excite SRS. The investigations showed a substantial decrease in SRS threshold in comparison to corresponding values at $\lambda_0 \approx 0.7\mu$. In benzene, SRS was approximately half that at $\lambda_0 \approx 0.7\mu$ under the same investigation conditions. This could be the result of the fact that 1) with the rise of operational frequency ω_0 the value β_{cl} increases or 2) the diameter of the focal spot of the generator of optical harmonics can be considerably smaller than that of the ruby laser, due to a smaller divergence of the harmonic beam. The intensity of SRS grows with the distance between the forward edge of the vessel and the focus. Generators of harmonics, in addition to their use for observation of SRS in the vicinity of electron absorption bands, can also be used for the investigation of SRS and nonlinear absorption effects in intensive biharmonic fields (including both Raman scattering of the harmonic field by coherent molecular oscillations excited by a wave of fundamental frequency and nondegenerated multiphoton absorption). Orig. art. has: 2 formulas and 2 tables. [JA]

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L 49442-65

ACCESSION NR: AP5010522

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: 09Jan65

ENCL: 00

SUB CODE: 0P

NO REF SOV: 004

OTHER: 005

ATD PRESS: 3245

Card 3/3

9.2572

25959

S/141/61/004/001/019/022
E192/E382

AUTHORS: Akhmanov, S.A., Romanyuk, A.K. and Strukov, M.M.

TITLE: The Characteristics of a Double-tuned Parametric Oscillator

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Radiofizika, 1961, Vol. 4, No. 1, pp. 179 - 181

TEXT: The purpose of this paper is to give some experimental results relating to the investigation of double-tuned parametric oscillators. The data on such oscillators seems to be scarce, except for the work of V.A. Lazarev (Ref. 2 - ZhTF, 10, 918, 1940), where the parametric excitation of a system consisting of two coupled tuned circuits was investigated theoretically and experimentally. The system considered in this work is in the form of two tuned circuits coupled by means of a periodically-changing reactance (similar to that of Ref 3 (H. Heffner, G. Wade - J. Appl. Physics, 29, 1321, 1958)). The principal parameter of interest in this system is its frequency stability, since it produces two frequencies f_1 and f_2 , such that $f_1 + f_2 = f_H$, where f_H is the
Card 1/6

The Characteristics of ²⁵⁹⁵⁹....

S/141/61/004/001/019/022
E192/E382

pump frequency. The frequencies f_1 and f_2 can be continuously varied by varying the resonant frequencies f_{01} and f_{02} of the tuned circuit in such a way that $f_{01} + f_{02} \approx f_H$. In other words, a double-tuned oscillator of this type is variable while its pump frequency is fixed. The studied amplifiers cover the frequency range from 2 - 20 Mc/s as well as UHF (pump frequencies of 6 000 and 9 000 Mc/s). The variable reactances employed were in the form of germanium p-n junction diodes. At UHF the tuned circuits had Q-factors of the order of 50 - 80 and the oscillators were excited at pump powers of 10 - 20 mW; on the other hand, the oscillators for the lower frequencies were excited at pump signals of 1.5 - 2 V. The power generated by the oscillators was 10-14 db lower than the pump power. The steady-state amplitude of the oscillator output was largely dependent on the nonlinear conductance of the diodes. The frequency-stability measurements were carried out by using a crystal-stabilized

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S/141/61/004/001/019/022
E192/E382

The Characteristics of

pump-source generator operating at $f_H = 28 \text{ Mc/s}$. The block schematic of the measuring system is given in Fig. 1. In the first series of experiments, the frequencies f_1 and f_2 were varied between 11 and 13 Mc/s and 17 and 15 Mc/s, respectively; in the second group of experiments, $f_1 \approx 5 \text{ Mc/s}$ and $f_2 \approx 23 \text{ Mc/s}$. The experimental results showing the dependence of the generated frequency on the changes of the reactances in the tuned circuits are shown in Fig. 2. The axis of the abscissae shows the relative change $\Delta C_1/C_1$ of the tuning capacitance C_1 of the first circuit, while the axis of the ordinates gives the corresponding relative change $\Delta C_2/C_2$ of the capacitance C_2 of the second circuit, which is necessary to ensure the stability of the frequency f_1 . It is seen that the signs of ΔC_1 and ΔC_2 coincide and that for $Q_1 = Q_2$, the ratio $\Delta C_1/C_1 = \Delta C_2/C_2$ (see Curve 1). In general, these two ratios differ by a

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The Characteristics of²⁵⁹⁵⁹

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E192/E382

factor K , which is dependent on the damping of the circuits; for the graphs II and IV, $Q_1 > Q_2$, while for the graph III $Q_1 < Q_2$. It is concluded, therefore, that the "unilateral" deviations of the reactive parameters in a double-tuned parametric oscillator are mutually compensated. The frequency stability of the system is dependent, to some extent, on the pump voltage and this effect amounted to 50 - 70 cps/V. The influence of the fluctuations of the variable reactance diode on the frequency stability can be made negligible since the temperature coefficient of the p-n junction is low and the biasing source for the diode can be made very stable. The authors express their gratitude to Yu.Ye. D'yakov for suggesting the formulae and for valuable remarks, to S.D. Gvozdover for his interest in this work and to A.V. Krasilov for supplying the semiconductor diodes.

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25959
The Characteristics of

S/141/61/004/001/019/022
E192/E382

There are 2 figures and 6 references: 2 Soviet and 4 non-Soviet. The four English-language references quoted are: Ref. 3 (quoted in text); Ref. 4 - A. Uhler, Proc. IRE, 46, 1115, 1958; Ref. 5 - Hsu-Hsiung - NSIA-ARDC Conf. Electron., Washington, 1958, p. 81; Ref. 6 - P. Fitzgerald, G. Wade and C. Crumly, IRE Trans. Electron. Devices, 6, 243, 1959.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet
(Moscow State University)

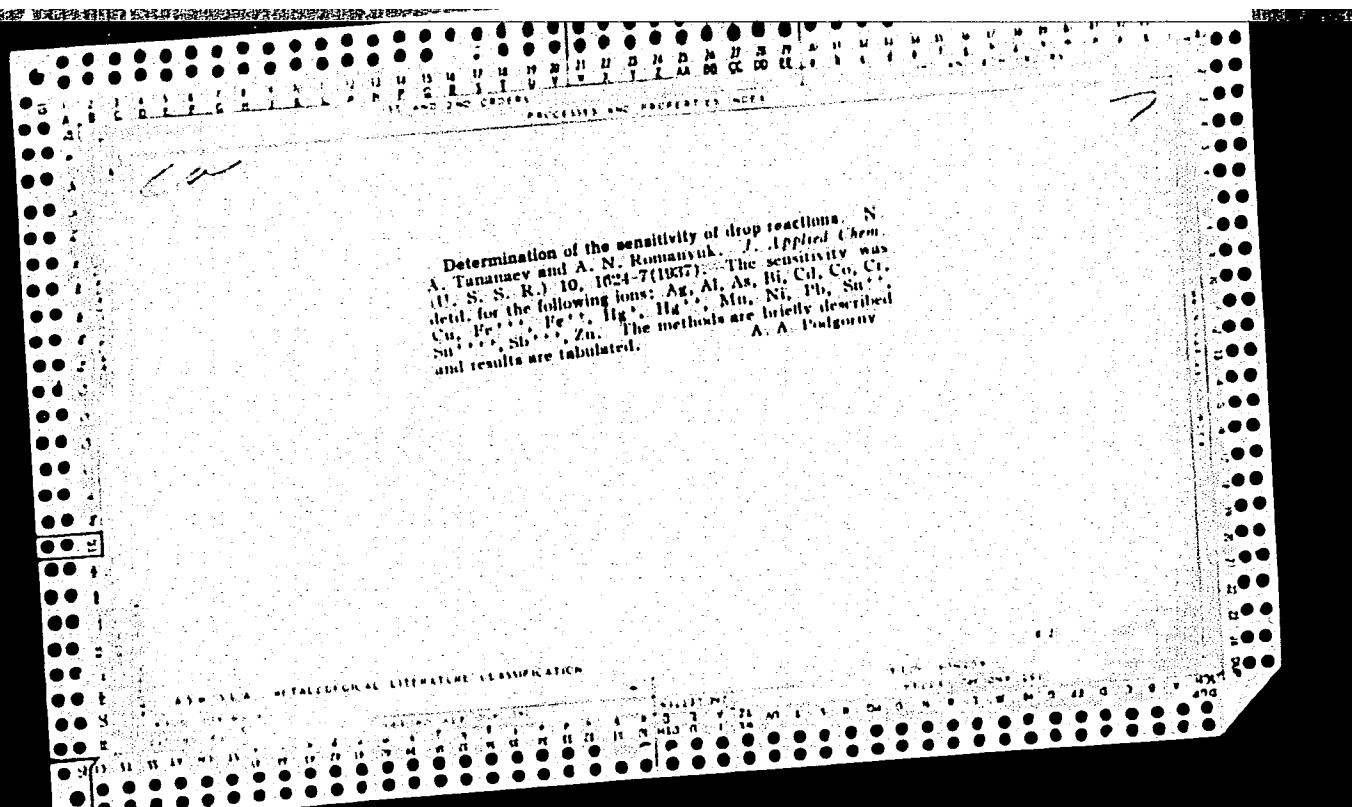
SUBMITTED: July 9, 1960

Card 5/6

AKHMANOV, S.A.; D'YAKOV, Yu.Ye.; ROMANYUK, A.K.; STRUKOV, M.M.

Stable wide-band generator with a nonlinear reactance. Prib. i
tekh. eksp. 6 no.5:92-97 S-0 '61. (MIRA 14:10)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta.
(Pulse techniques (Electronics))



USSR / Cultivated Plants. General Problems.

M-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24922

Author : Zamostnyy, N. I., ~~Remanyuk, A. Yu.~~

Inst : The S.R.I. of Agriculture and Livestock Raising
in the Western Rayons of the Ukrainian SSR

Title : The Horse Bean as a Filler

Orig Pub: Kartoffel', 1957, No 2, 71-72

Abstract: Tests on filling potato plantings with horse beans were made in 1955-1956 by the Scientific Research Institute of Agriculture and Livestock Raising in the Western Rayons of the Ukrainian SSR. The medium ripening Jubel variety and late Karnea potatoes were taken for the tests. They had vegetation periods corresponding to those of the horse beans. Twenty tons per hectare of manure were applied under the potatoes, and a side dressing of

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4

Romanyuk, B.
AID P - 4468

Subject : USSR/Aeronautics - Parachutes

Card 1/1 Pub. 58 - 5/10

Author : Romanyuk, B., Honored Master of Sports

Title : Jumping from High Altitudes

Periodical : Kryl. rod., 2, 9-11, F 1956

Abstract : The article relates the preparation and the carrying out of two high altitude jumps performed by the author with a group of other parachutists in the summer of 1955. The article contains some indications concerning the equipment used in the USSR in high altitude jumps as well as a summary description of a device ensuring the timely opening of parachutes. One photo.

Institution : None

Submitted : No date

Romanyuk, B.A.

49-1-5/16

AUTHOR: Romanyuk, B.A.

TITLE: Determination of Gravity at Sea by the Pendulum Method.
III (Opredeleniye sily tyazhesti na more
mayatnikovym sposobom. III)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya,
1958, Nr 1, pp.54-64 (USSR)

ABSTRACT: In order to correct the observed values of the force of gravity for the inclination and acceleration of the support, it is necessary to know them as functions of time. The inclinations and accelerations of the support can be deduced from the recordings obtained with pendula with different natural periods of oscillation. An "accelerometer" is defined as a "fast" pendulum whose natural period is much less than the periods of inclinations and accelerations of the support (usually less or equal to 1 sec). An "inclinometer" is defined as a "slow" pendulum, whose natural period of oscillation is greater than the period of inclinations and accelerations of the support (usually 35 to 60 sec). Approximate differential equations of motion of inclinometers and accelerometers are set up,

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49-1-5/16

Determination of Gravity at Sea by the Pendulum Method. III.

taking into account terms of the second order of small quantities. The accuracy and limitations of the solutions are considered and working formulae are obtained which can be used to calculate the corrections for inclinations and accelerations, the main terms of which coincide with those given in Ref.3. It is concluded that it is in principle possible to carry out pendulum measurements at sea, provided the acceleration of the ship on which the measurements are carried out is less than 20 g. Considerable differences occur at higher accelerations. If, however, the inclination of the pendulum support is determined by some other method, for example, photography of the horizon, then it is quite possible to carry out pendulum observations with accelerations greater than 20 g. It is shown that pendulum instruments with a universal joint suspension and possibly a smaller period of natural oscillations have considerable advantages over pendulum instruments with a larger period of these oscillations. The former will follow more easily changes in the direction of the instantaneous vertical. The damping arrangement of a pendulum instrument should not be attached to the ship.

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49-1-5/16

Determination of Gravity at Sea by the Pendulum Method. III.

Various methods of interpretation of the records of inclinometers and accelerometers are described and calculation schedules are given. M.S. Molodenskii and Yu. D. Bulanzhe participated in this work.

There are 4 tables, 1 diagram and 3 Slavic references.

ASSOCIATION: Ac. of Sc., USSR, Institute of the Physics of the Earth (Akademiya nauk SSSR, Institut fiziki Zemli)

SUBMITTED: February 19, 1957.

AVAILABLE: Library of Congress.

Card 3/3

ROMANYUK, B. A.

"Determination of Gravity at Sea by the Pendulum Method," by
B. A. Romanyuk, Institute of the Physics of the Earth, Academy
of Sciences USSR, Izvestiya Akademii Nauk SSSR, Seriya Geofizi-
cheskaya, No 3, Mar 57, pp 341-350

In the article, from general theorems of theoretical mechanics, an exact differential equation of the motion of a pendulum on a moving support which has six degrees of freedom is derived. The exact differential equation of a pendulum is reduced to an approximate equation in which are retained terms up to the fourth order inclusively. A differential equation of the motion of an imaginary pendulum is obtained. (U)

SUM. 1374

PROCESSES AND PROPERTIES INDEX																									
1ST AND 2ND LETTERS													3RD AND 4TH LETTERS												
<p>ROMANYUK, E. I.</p> <p>22</p> <p>Experimental acid treatment of limestone in the Ishim-bay oil fields. E. I. Romanyuk and G. S. Topchiev. <i>Neft 7</i>, No. 6, 17-18 (1976). -- The bore hole was clogged with a dry mud after drilling. Circulation was established by admitting a soln. of CaCl_2 and a 10% soln. of H_2SO_4. A gusher resulted after repetition of the above operations, followed by a resting period and swabbing. A. A. B.</p>																									
<p>ASD 55.4 METALLURGICAL LITERATURE CLASSIFICATION</p>																									
<p>1-2</p>																									

ROMANYUK, F.I.; OGNEVA, N.Ye.

Cement material for exclusion-repair work in oil wells on a
base of urea-malamine-formaldehyde resins. Trudy VII no.41:
47-54 '64. (MIRA 17:11)

ROMANYUK, F.I.; KUZ'NEKOVA, O.M.; PONOMAREV, K.I.; USACHEV, P.M.;
BOL'SHAKOV, L.A.

Exclusion of bottom waters with petroleum-paraffin solutions.
Trudy VMII no.35:61-67 '61. (MIRA 15:1)
(Oil fields---Production methods)

ROMANYUK, F.I.; KAMENSKIY, N.V.; OGNEVA, N.Ye.

Exclusion of bottom waters with synthetic tars. Trudy VNII
no.35:68-80 '61. (MIRA 15:1)
(Oil fields—Production methods)

ROMANYUK, F.I.; PETROV, G.S. [deceased]; GOLUBEVA, A.N.; KARTASHEV, N.A.;
SAZONOVA, V.M.; KAMENSKIY, I.V.; OGNEVA, N.Ye.

New methods for preventing the flow of reservoir waters into
wells being exploited. Trudy VNII no.16:106-127 '58.

(MIRA 11:12)

(Oil field flooding)

93-6-10/20

AUTHOR: Romanyuk, F.I., Kravchenko, I.I., and Kartashev, N.A.

TITLE: Exclusion of Bottom Waters from Producing Oil Wells by Means of Kerosene-Cement Mixtures (Izolyatsiya podoshvennykh vod v ekspluatiruyushchikhsya skvazhinakh kerosinotsementnymi smesyami)

PERIODICAL: Neftyanoye khozyaystvo, 1957, Nr 6, pp. 35-40 (USSR)

ABSTRACT: Research and practice has shown that bottom water exclusion from oil wells by means of cement plugs is ineffective and leads to petroleum losses. Bottom waters can be most effectively excluded by introducing into the strata colloidal or true solutions, or various suspensions including conventional water-cement mixtures. Experience with the water-cement mixtures at the Bavly and Tuymazy oil fields demonstrated their superiority to conventional well cementing under pressure. But kerosene or Diesel oil mixed with cement is superior even to mixtures of water and cement because they set and harden only when the kerosene is displaced by water. Furthermore the properties of kerosene-cement mixtures can be improved by adding cement accelerators such as cresol, acidol, neutralized black contact (NChK), Petrov's "contact", and grade III asphalt. In 1956 kerosene-cement mixtures were tested in both the Bashkirskaya and the Tatarskaya ASSR. The tests were made in 11 wells flooded with bottom water (five wells each in the Tuymazy and Serafim oil fields and one in Bavly). Fig. 1 shows the layout and assembly

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93-6-10/20

Exclusion of Bottom Waters from Producing Oil Wells by Means of Kerosene-Cement Mixtures (cont.)

of the cement mixing equipment used in the tests. The proportions of kerosene to cement were calculated with the aid of formulas and the results are shown in Fig. 2. N.G. Imanayev and S.A. Chumanov of the Petroleum Production Administration of the Tuymazy Petroleum Industry (NPU Tuymazaneft') and A.M. Paykov and P.F. Shtur of the Petroleum Production Administration of the Ktyabr'skiy Petroleum Industry (NPU Otktyabr'skneft') participated in the field experiments. The tests were successful in seven wells but failed in the others (Table 1), showing that kerosene-cement mixtures are suitable for extensive industrial application. In order to utilize this method of water exclusion it will be necessary to improve cementing equipment and materials. Airtight cement rings, non-shrink and expandable cements, plugging materials of greater plasticity, and packers of drillable material are needed. New types of cumulative action perforators will have to be designed so that the bullet or torpedo chambers are arranged crosswise in one plane and simultaneous firing at several points in the casing and cement collar and sufficient crushing of the surrounding rock is ensured. The available conventional gun perforators, torpedoes (TFK-22 and TFK-32) and selective perforators (SSP) do not satisfy industrial requirements. The cumulative action bulletless perforators (PK-103) are best but are produced in insufficient quantities. A more exact method for determining the place

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93-6-10/20

Exclusion of Bottom Waters from Producing Oil Wells by Means of Kerosene-Cement Mixtures (cont)

where a stratum is to be fractured will have to be developed because the present radiometric methods for determining oil-water contact in wells and radioactive isotope methods for determining places where strata are to be fractured are inaccurate. Without a solution to the above problems and without careful study of the conditions and nature of flood in individual wells and in entire formations the successful exclusion of water from oil wells cannot be ensured even with the best of methods. There are two figures and one table. The three references are USSR.

AVAILABLE: Library of Congress

Card 3/3

ROMANYUK, F. I.

"Isolation of Water Inflow in Oil Wells by the Method of Chemical Sealing of Pores in Water-Bearing Rocks." Thesis for degree of Cand Tech Sci. Sub 20 Jun 50, Moscow
Order of Labor Red Banner Petroleum Inst imeni I. M. Gubkin

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

ROMANYUK, F.I.; KRAVCHENKO, I.I.; KARTASHEV, N.A.

Using mixtures of kerosene and cement for excluding water from
active wells. Neft.khoz. 35 no.6:35-40 Je '57. (MIRA 10:7)
(Oil field flooding) (Petroleum) (Cement)

IMANAYEV, M.G.; GOMBINER, B.YG.; KRAVCHENKO, V.A.; BLAZHENICH, V.A.;
MARKOV, V.F.; SATTAROV, M.M.; GIL'MANSHIN, I.G.; ASHIROV, A.B.;
BOBELYUK, V.P.; ROMANYUK, E.I.

Comments on the article by M.L. Shupichov "Exclusion of reservoir
waters". Neft.khoz., No.11, 1962. Neft.khoz. 41 no.2:38-57 (p.10).

Present status of and prospects for the construction of steel
tanks in the U.S.S.R. Ibid.:58-62

1. Neftepromyslovoye upravleniye 'Tymazaneft' (for Im. Manayev,
Gombiner). 2. Ufimskiy nefyevoy nauchno-issledovatel'skiy
institut (for Kravchenko, Blazhenich). 3. Neftepromyslovoye
upravleniye Chernomor'neft' (for Markov). 4. Neftepromyslovoye
upravleniye Arlanneft' (for Sattarov, Gil'manshin). 5. Gosudar-
stvennyy institut po proyektirovaniyu i issledovatel'skim
rabotam neflodobyvayushchey promyshlennosti vostochnykh rayonov
strany (for Ashirov). 6. Vsesoyuznyy neftegazovyy nauchno-
issledovatel'skiy institut (for Bobelyuk, Romanyuk).

(MIRA 17:10)

ROMANYUK, G.D.

Determining the digging resistance in the operation of rotary excavators. Stroi.truboprov. 9 no.2:18-21 F '64. (MIRA 17:3)

1. Spetsial'noye konstruktorskoye byuro "Gazstroymashina".

MALININA, V.A. [Malymina, V.A.]; ROMANYUK, G.O. [Romaniuk, H.O.];
KOSARUK, G. Ya. [Kosaruk, H. IA.]; BALAYEVA, G.P. [Balaieva,
G.P.]

Manufacture of goods from synthetic fibers in the Zhitomir
Hosiery factory. Leh. prom. no.4:12-14 O-D '64
(MIRA 18:1)

Romanuk, G.T.

COUNTRY : USSR
CATEGORY : Cultivated Plants. Commercial. Oleiferous. Sugar-bearing. M
DOC. JOUR. : Agricul., No. 1, 1959, No. 1739
AUTHOR : Romanuk, G.T.; Shcherbina, V.I.
INST. : All-Union Sci. Res. Inst. of Oleiferous and
TITLE : Selection and Seed Growing of Sunflower.
 Web.: Krasnly otchet o nauchno-issled. rabote
 Vses. n.-i. in-va maslichn. i sel'skoykh.
ORIG. PUB. : kul'tur za 1956 g. Krasnodar, "Nov. Puti",
 1957, 36-40
ABSTRACT : At the Armavirskiy base, from a group of early-ripening
 sunflower varieties, in competitive variety testing in the
 year 1956, first places according to seeds' crops were
 taken by varieties 10,28 and 9342. In the group of
 medium-ripening varieties, according to these criteria,
 a new variety 9445 was isolated. In the process of the
 performed work, the productivity and oil bearing capacity
 of Armavirskiy 3497 and the All-Union Research Institute
 of Oil and Fat Plants 2646 varieties were increa-
 sed significantly in the years 1955 and 1956 according
 to:
 1/2 *Essential Oil-bearing Crops.

USSR/Cultivated Plants. Technical Oleaceae, Sugar Plants

M-7

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1662

Author : G.T. Romanyuk, V.I. Shcherbina

Inst : Not Given

Title : Sunflower Selection and Seed Growing

Orig Pub : V sb.: Kratkiy otchet o nauchn.-issled. rabote Vses. n.-i.
in-ta machish i efiromaslich. kul'tur VASKhNIL za 1955 g,
Krasnodar, 1956, 26-31

Abstract : Results are presented of selection work at the auxiliary station of the Institute of Armavir During 1952-1955 in developing early-ripe, high-oily sunflower varieties and their further improvement in the process of the seed-growing. Characteristics of the best varieties and prospective strains are indicated.

Card : 1/1

ROMANYUK, I.A.

Effect of electrolytic corrosion on the measurement of the spontaneous potential. Razved. i prom. geofiz. no.39:61-68 '61.

(MIRA 15:3)

(Electric prospecting)

ROMANYUK, I.M.; ZELIZNYI, A.M.

Simultaneous production of acetylene and ethylene with the
pyrolysis of hydrocarbon raw materials. Khim. prom. 41 no.2:
13-16 F '65. (MIRA 18:4)

ROMANYUK, I.M.; SHEVCHUK, V U.; ZELIZNYI, A.M.

Effect of the width of ignition on the process of thermooxidative
pyrolysis of methane. Gaz. prom. 10 no.9:40-45 '65.

(MIRA 18:11)

ZELIZNYI, A.M.; POMANYUK, I.M.; SHEVCHUK, V.U.

Increasing the productivity of a single flow reactor of oxidative
pyrolysis of methane. Khim. prom. 40 no.12:891-894 D 164.
(MIRA 18:2)

KOROBOCHKIN, I.Yu.; KIRVALIDZE, N.S.; GLADKIKH, D.V.; YESAULOV, A.T.;
ROMANYUK, I.Ye.; KUTSENKO, I.S.

Accelerating the heating of stainless steel ingots before
piercing. Biul.TSIICHM no.4:40-42 '61. (MIRA 14:10)

1. Nikopol'skiy Yuzhnotrubnyy zavod.
(Rolling (Metalwork)) (Steel, Stainless)

ROMANUK, I.M.; ZELICHY, A.M.; SHEVCHEN, V.M.

Investigating incomplete burning in a twisted gas flow in a
tunnel acetylene reactor. Gaz. prom. 9 no.10:34-40 '64. (MIRA 17:12)

BALYTA, V.I.; ZELIZNYI, A.M.; ROMANYUK, I.M.; SHEVCHUK, V.U.

Layout of equipment for the production of acetylene by the
oxidation pyrolysis of methane. Gaz.prom. 4 no.9:36-41 S '59
(MIRA 12:11)

(Acetylene) (Methane)

РТЯМ В. И.; КОМАНД, И. И.; ЛИДЕРСКО, И. И.

Heart - sounds

Changes of cardiac sounds in tuberculosis during treatment with artificial pneumoperitoneum. Probl. tub. No. 2, 1952

9. Monthly List of Russian Accessions, Library of Congress, August 1958, Uncl.
2

KIEV STATE U IENI T. G. SHEVCHENKO. KIEV, 1955.
ROMANYUK, I. T.

ROMANYUK, I. T. -- "Problems of the Psychology of Sensation in the Works of
I. M. Sechenov and I. P. Pavlov." Min Higher Education Ukrainian
SSR. Kiev State U imeni T. G. Shevchenko. Kiev, 1955.
(Dissertation for the Degree of Candidate in Pedagogical Sciences.)

So; Knizhaya Letopis' No 3, 1950

ROMANYUK, I.T. (Kiyev)

Apparatus for kymographic records of speech responses. Vop.psikhol.
5 no.1:147-148 Ja-F '59. (MIRA 12:4)
(Electrokymography) (Speech--Psychological aspects)

LANDISBERG, Ya.I.; GORUK, Z.I.; MUSIY, Ye.R.; ROMANYUK, L.M. (Kremenets,
Ternopol'skoy obl.)

Use of inhalations of aerosol expectorants for the diagnosis of
tuberculosis. Vrach.delo no.7:745-747 JI '59. (MIRA 12:12)

1. Kremenetskiy protivotuberkuleznyy dispanser.
(TUBERCULOSIS--DIAGNOSIS) (AEROSOLS)

BELEYA, V. M.; ROMANYUK, L. M.; LANDISBERG, YA. I.

Tuberculosis

Changes of cardiac sounds in tuberculosis during treatment with artificial pneumoperitoneum. Probl. tub. No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress. August ¹⁹⁵²~~1951~~. Unclassified.

27960
S/185/61/006/004/002/015
D274/D303

26.2331

AUTHORS:

Gabovych, M.D. and Romanyuk, L.I.

TITLE:

Plasma ejection by electrodeless pulse-discharge
in a vacuum

PERIODICAL:

Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 4, 1961,
461-466

TEXT: Experiments are described with bursts of plasma in a narrow channel. Fig. 1 shows the experimental setup used. In glass tube 1 a discharge takes place at a pressure of $4 \cdot 10^{-2}$ mmHg in region 1, and of below $1 \cdot 10^{-4}$ mmHg in region 5. The current related to the plasma-bursts was measured by moving electrode 6. Oscillograms were taken of the voltage drop across resistor 3 (which is part of the same circuit as 6). Oscillograms are shown of the current in circuit 6 at various voltages of the capacitor battery. The same figures show a plot of the time-derivatives of the exciting field-strength H. Another figure shows the dependence of the electron

Card 1/3

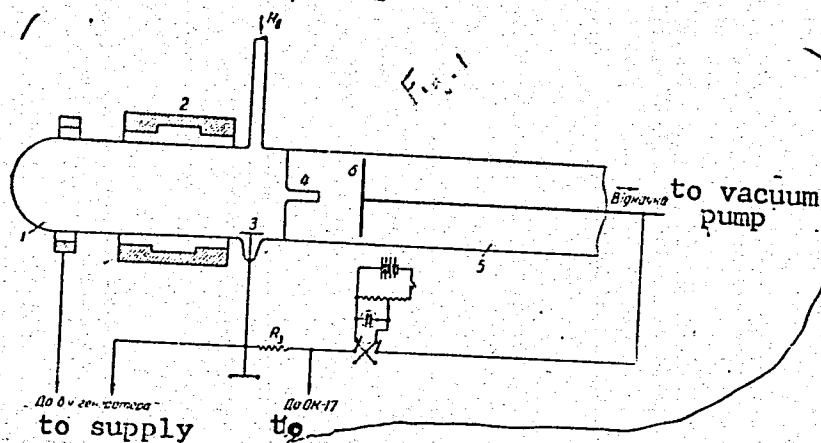
Plasma ejection...

27960
S/185/61/006/004/002/015
D274/D303

tute AS UkrSSR, Kiyev)

SUBMITTED:

January 1, 1961



Card 3/3

Fig. 1

20668

S/057/61/031/001/013/017
B104/B204

26.2021

AUTHORS: Gabovich, M. D., Pasechnik, L. L., and Romanyuk, L. I.

TITLE: The boundary of a penetrating plasma and plasma focusing

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 1, 1961, 87-93

TEXT: The authors describe a probing method for determining the boundary of a penetrating plasma. The experimental arrangement shown in Fig. 1 consists of a pulsed ion source with electron oscillations in a magnetic field. The discharge current attains 40 a, the ion pulses have a rectangular shape, the pulse repetition frequency is 50 cps, and the magnetic field strength is about 300 oersted. The discharges were produced in hydrogen at a pressure of $5 \cdot 10^{-3}$ mm Hg. The plasma coming from the source passes through an opening in an electrode (9), and reaches a lens consisting of two cylinders (10) and (11) (inner diameter of the cylinder: 120 mm; L = 120 mm; distance ΔL : 20 mm). Electrode (11) has a negative potential of $U_0 = 50$ kv relative to electrode (10). A beam catcher prevents secondary electron emission from electrode (11). Probes (7) and (8) could be shifted. The signal coming from the probes was amplified

Card 1/7

20668

The boundary of a penetrating

S/057/61/031/001/013/017
B104/B204

and fed into a peak generator. The output signal of this peak generator was conveyed to a recorder, whereby the spatial distribution of the probe current could be recorded. From the axial and radial distributions of the plasma parameters near the opening, which are shown in Figs. 4 and 5, it follows that an increase of the negative potential of electrode (11) up to $U_0 = 30$ kv produces no effect upon the distribution of the plasma parameters. At a greater distance from the opening, determination of the plasma parameters is more difficult. The authors confined themselves to determining the plasma boundary, and, for this purpose, they applied a potential of 100 v to the probe relative to electrodes (5) and (9); the probe current was automatically recorded. In this way, a plasma boundary could be clearly determined. This boundary is at a distance of about 10-15 mm from the opening and manifests itself in a change in the drop of the probe current. Up to approximately 10 mm, the probe current drops exponentially; at larger distances a greater drop occurs (Fig. 6). In this way, it is possible to determine the plasma boundaries for various conditions. As may be seen from a close study of the plasma boundaries, the shape and position of the plasma boundary change with a change in U_0 , which is equal to a change in the focusing properties of the system.

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The boundary of a penetrating ...

S/057/61/031/001/013/017
B104/B204

If the plasma boundaries are simulated with metal electrodes of corresponding configuration, it is possible, conditions being suitable, to construct the ion trajectories (Fig. 9). From this figure it may be seen that by increasing the potential and extending the plasma boundary, the ion current focused in the beam catcher may be increased. Fig. 10 graphically represents the experimental dependence of the ion current on the potential U_0 . There are 12 figures, 1 table, and 7 references: 4 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Institut fiziki AN USSR Kiyev
(Institute of Physics AS UkrSSR, Kiyev)

SUBMITTED: June 1, 1960

Card 3/ 7

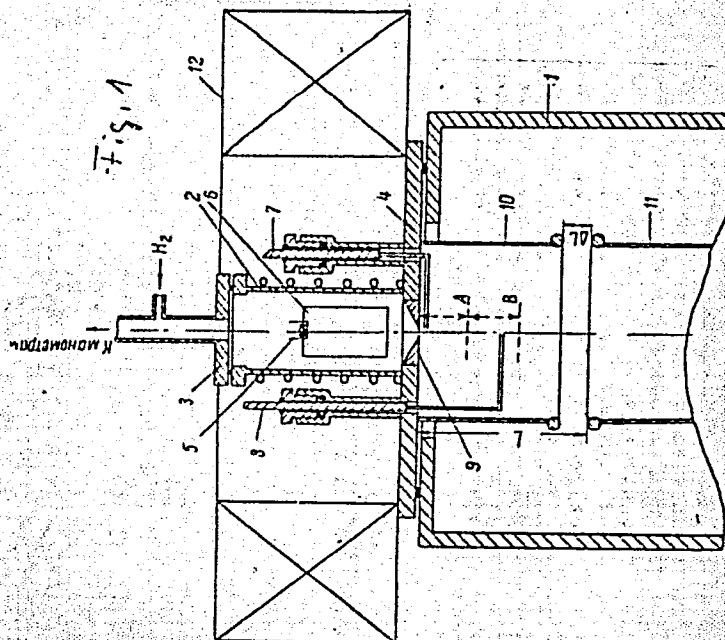
20668

The boundary of a penetrating ...

S/057/61/031/001/013/017
B104/B204

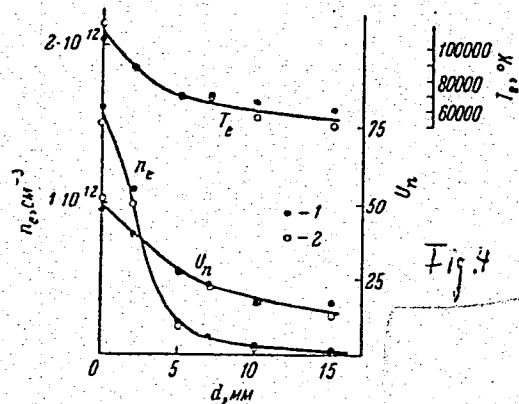
Legend to Fig. 1:

- 1) Chamber wall.
 - 4) Plate. 5) Electrode.
 - 7) and 8) Probes.
 - 9) Opening (electrode).
 - 10) and 11) Cylinders
- of the lens. Potential U_0
is applied to electrode
(10). 12) Solenoid.

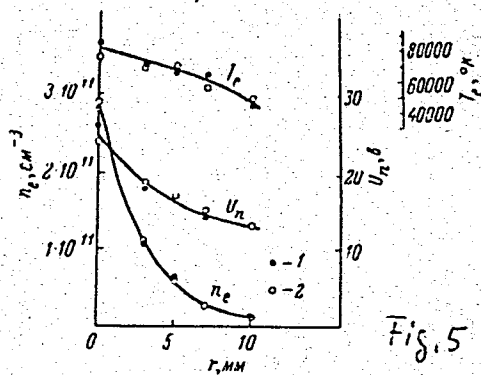


Card 4/7

The boundary of a penetrating ...



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S/057/61/031/001/013/017
B104/B204



Legend to Figs. 4 and 5: Distributions of the electron temperatures T_e , the electron concentrations n_e , and the volume potential.

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The boundary of a penetrating ...

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B104/B204

Legend to Fig. 6:
Probe current as a function of the
distance from the opening.

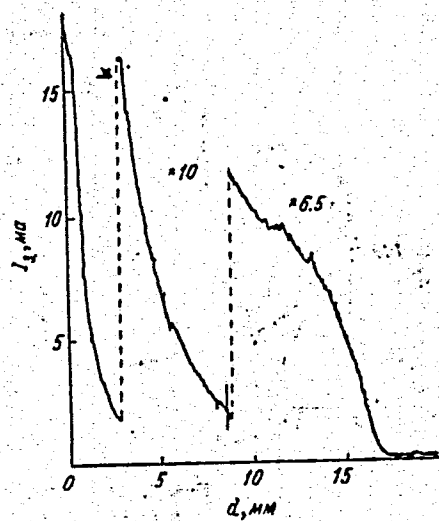
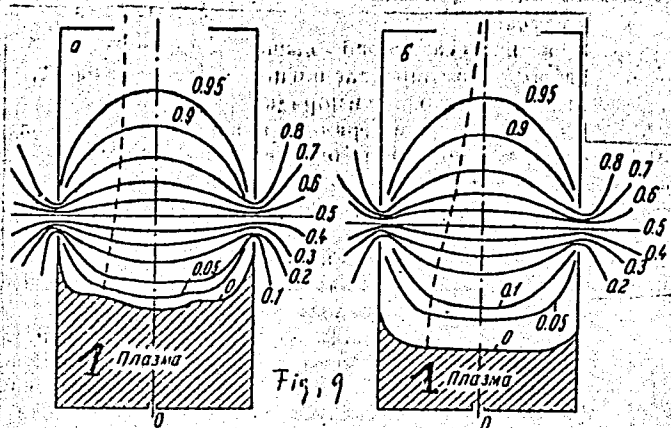


Рис. 6.

Card 6/ 7

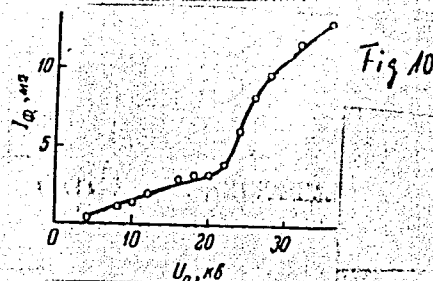
20668

S/057/61/031/001/013/017
B104/B204



Legend to Fig. 9:

1) Plasma simulated with a metal for the construction of ion trajectories.



Legend to Fig. 10:

Dependence of the ion current of U focused in the beam catcher.

Card 7/7

24, 2120 (1049, 1482, 1502)
10-8000

20924
S/057/61/031/003/008/019
B125/B202

26.2221

AUTHORS: Gabovich, M. D. and Romanyuk, L. I.

TITLE: Effect of a magnetic field on the shape of the boundary of
a penetrating plasma and on plasma focusing

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 3, 1961, 315-320

TEXT: The authors demonstrate that a magnetic field may considerably influence the shape of the boundary of a penetrating plasma. According to the configuration of the boundary concerned the magnetic field may improve or impair plasma focusing. The development of new methods of controlling the shape of the plasma boundary is of concern. The apparatus used for these experiments has been described already by M. D. Gabovich, L. L. Pasechnik, L. I. Romanyuk, (ZhTF, 31, 87, 1961). It is illustrated once again in Fig. 1. Like in earlier studies the authors used a pulsed ion source with a duration of pulses of 100 microseconds and with a frequency of 50 pulses/sec. In this case the plasma penetrated into the plasma lens consisting of electrodes 6 and 7 through a hole in electrode 4. The plasma boundary was determined by two probes 2 and 3. Fig. 2

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20924

S/057/61/031/003/008/019
B125/B202

Effect of a magnetic field on the...

shows the dependence of the amperage I_p measured in the beam catcher on the magnetic field strength produced by the solenoid. With an intensification of the magnetic field I_p decreases already with very weak magnetic fields. Fields with some dozens of oersteds are already sufficient for a considerable reduction of the ion current focused into the beam catcher. The configuration of the boundary of the penetrating plasma is changed as a result of its contraction and may impair the focusing properties of the system. Also a weak magnetic field may disturb plasma focusing, however, at least two cases exist where the magnetic field improves the focusing of the ions: 1) Focusing with lacking magnetic field under exclusive action of an electric field. 2) If the magnetic field in the discharge chamber of the source considerably penetrates into the region of the plasma to be studied. In the last chapter the author describes a ring-shaped plasma source. The following problem is dealt with: Let us replace the sole opening with its center on the axis of the source by several openings which lie on a concentric circle. Is the intensity of the plasma near the axis of the lens weakened and is the concentration thus distributed over the plasma surface? In what manner is the quality

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20924

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B125/B202

Effect of a magnetic field on the...

of plasma focusing affected? For this purpose the central opening was replaced by 6 openings lying on a circle with a radius of 19mm; the ion source, however, remained the same. In the case of the holes circularly arranged the density of the ion current was considerably lower than with one central opening (in the cases studied here $j_p = 65 \text{ ma/cm}^2$ and $j_p = 440 \text{ ma/cm}^2$). In the case of circularly arranged holes more than 70 % of the total ion flux could be focused into the beam catcher. With the concentrically circularly arranged holes the configuration of the plasma boundary is much more concave than in the case of a single central opening. Also in this case the magnetic field impairs the focusing of the plasma since the plasma is contracted and a projection is formed on the concave boundary of the plasma. The authors conclude that the best results can be obtained by passing the plasma through openings which are at a certain distance from the axis of the source. In some cases such systems are less sensitive to the effect of magnetic fields. There are 12 figures and 3 Soviet-bloc references

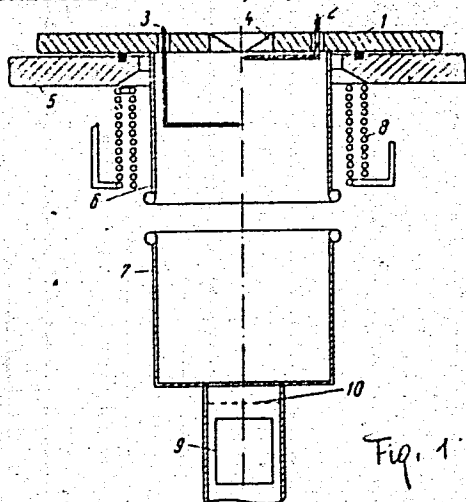
ASSOCIATION: Institut fiziki AN USSR, Kiyev (Institute of Physics AS UkrSSR, Kiyev)

Card 3/4

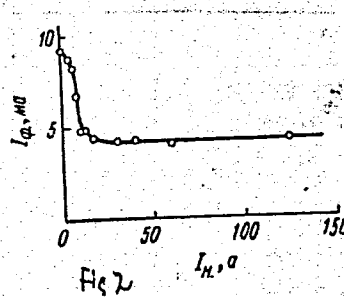
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Effect of a magnetic field on the...

SUBMITTED: June 1, 1960



S/057/61/031/003/008/019
B125/B202



Card 4/4

S/185/63/008/001/008/024
D234/D308

AUTHORS: ^C Kabovych, M. D., Lozova, O. O. and Romanyuk, L. I.
TITLE: Possibility of location of the boundary of penetrating plasma by a beam of charged particles
PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 1, 1963, 57-59

TEXT: If a beam of electrons passing through plasma and falling on a fluorescent screen is displaced away from the ion source, the bright spot on the screen will also be displaced in the same direction until the beam reaches the plasma boundary, and then in the opposite direction owing to the reflection of the beam at the boundary. By varying the inclination of the beam one can determine the position and the shape of the boundary. The authors describe an experimental installation which they used for checking this method. Data agree well with those obtained by the probe method if the potential is not too high. The error at high potentials is explained by the fact that the boundary becomes convex, and use of

Card 1/2

Possibility of location ...

S/185/63/008/001/008/024
D234/D308

heavy negative ions instead of electrons is suggested in this case.
There are 3 figures.

ASSOCIATION: Instytut fizyky AN URSR (Institute of Physics of the
AS UkrSSR), Kiev

SUBMITTED: August 3, 1962

Card 2/2

ACCESSION NR: AP3002130

S/0185/63/008/006/0707/0708

AUTHOR: Paderno, Yu. B.; Romanyuk, L. I.; Fomenko, V. S.

TITLE: Utilization of lanthanum hexaboride as the cathode of an ion source

SOURCE: Ukrain's'kyi fizychnyy zhurnal, v. 8, no. 6, 1963, 707-708

TOPIC TAGS: lanthanum hexaboride cathode, method of preparation, use in ion sources

ABSTRACT: The suitability of lanthanum hexaboride as a cathode of an ion source with electron oscillations in a magnetic field was investigated. The LaB sub 6 powder was obtained through reduction of La sub 2 O sub 3 by boron in a vacuum of 10 sup -2 mm Hg at 1600C for 1 hr. The composition of the LaB sub 6 powder was as follows: La, 68.5%; B, 30.7%; and C, 0.11%. Tablets 6 mm in diameter and 1.5 mm thick were pressed from the powder. The tablets were cleaned and heated slowly up to 1800C in vacuum and held at this temperature for about 3 hr. Then they were slowly cooled and polished. The porosity of the tablets was 9 to 22%. During helium-discharge experiments, the discharge voltage, current, and magnetic

Card 1/2

ACCESSION NR: AP3002130

field were 200 v, 1.5 amp, and 900 ce, respectively. The density of discharge current on the cathode was 5.3 amp/cm sup 2. The density of ion current at the output of the source was 0.3 amp/cm sup 2. The life of the cathode was 30 to 40 hr. During discharge in hydrogen at a similar current density, the cathode did not operate as stably as in helium, and its life was only 5 to 10 hr. Orig. art. has: 1 formula.

ASSOCIATION: Insty*tut fizy*ky* AN URSSR (Physics Institute AN URSSR); Insty*tut metalokeramiky* 1 spetsplaviv AN URSSR, Kiev (Institute of Powder Metallurgy and Special Alloys AN URSSR)

SUBMITTED: 21Dec62

DATE ACQ: 12Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 002

OTHER: 001

Inst. Problems of Material Sci-

Card 2/2

ACCESSION NR: AP4020578

S/0057/64/034/003/0488/C495

AUTHOR: Gabovich, M.D.; Romanyuk, L.I.; Lozovaya, Ye.A.

TITLE: Escape of plasma from an oscillating electron source into vacuum in the presence of a magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.3, 1964, 488-495

DDPIC TAGS: plasma, plasma source, oscillating electron plasma source, plasma in magnetic field, probe measurements, thermal probes, plasma escape

ABSTRACT: The escape of a helium plasma from an oscillating electron source into vacuum was investigated experimentally in the presence of a magnetic field. The source employed a 6-mm diameter indirectly heating cathode on the axis of a 3-cm diameter cylindrical anode. The reflecting electrode was located 6 cm from the cathode, was kept at cathode potential, and had a 3-mm diameter opening for plasma escape. The glass vacuum chamber was about 12 cm in diameter and 27 cm long. Gas pressures of 2×10^{-2} and 2×10^{-4} mm Hg were maintained in the source and the vacuum chamber respectively. Anode potentials from 150 to 200 V were employed with discharge currents from 1.0 to 1.5 A. The source and vacuum chamber were located in a

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ACC.NR: AP4020578

uniform longitudinal magnetic field of 1000 Oe or less. The escaping plasma was investigated with probes of various types. In spite of the strong magnetic field, the ion current in the escaping plasma was not confined to the axis of the chamber but extended several centimeters from the axis. The ion current was due mostly to ordered motion, the current due to chaotic motion being very small. Most of the ions had energies roughly equal to the cathode drop in the discharge. There was a small admixture of lower energy ions. The distribution of electrical potential in the escaping plasma was determined with the aid of two types of thermal probe. At a fixed distance from the source the potential, as a function of the radius, showed a minimum on the axis of the chamber and a maximum some millimeters off the axis. On the axis the potential (with respect to the cathode and reflector) was large and positive near the source and fell rapidly to zero within a few centimeters. At the axis of the chamber an insulated probe assumed a large negative potential of several tens of volts. This potential increased in absolute value (became more negative) as the distance from the source was increased. When the probe was moved off the axis, the potential first fell rapidly to zero and then became positive. This behavior is interpreted as indicating the presence of a narrow beam of fast electrons produced by interaction of the electron current with the plasma within the source. Orig.art. has: 3 formulas and 7 figures.

Card 2/32

L-27599-65 EWT(1)/EPA(sp)-2/EPF(c)/EPA(w)-2/EEC(t)/T/EWA(m)-2 Pz-6/po-4/Pab-10/
Pr-4/Pi-4 IJP(c) WW/AT

ACCESSION NR: AP5003241

S/0057/65/035/001/0094/0100

AUTHOR: Gabovich, M.D. / Romanyuk, L.I. / Lozovaya, Ye.A.

72
46 B

TITLE: Formation of a quasineutral beam of accelerated ions in the plasma issuing from an ion source

SOURCE: Zhurnal tekhnicheskoy fiziki, v.35, no.1, 1965, 94-100

TOPIC TAGS: plasma, ion beam, ion source, ion acceleration

ABSTRACT: This paper reports a continuation of previous work of the authors (ZhTF 34,488,1964) concerning the reflex discharge ion source. The apparatus is similar to that described in the earlier paper, with such modifications as were required for the particular experiments performed. The apparatus was operated under a variety of conditions, the current-voltage characteristics were measured, and particular attention was given to the potential gradient in the plasma beam issuing from the source. The principal conclusion is that the following conditions are requisite for obtaining ions with energies corresponding to the cathode drop: the issuing plasma must contain an intense beam of primary electrons with appropriate velocity distribution; the plasma must issue from the chamber into a region of suf-

Card 1/2

L 27599-65

ACCESSION NR: AP5003241

efficiently high vacuum; there must be not positively charged electrode outside the discharge chamber that could remove electrons from the issuing plasma. Orig.art. has: 6 figures.

ASSOCIATION: Institut fiziki AN UkrSSR, Kiev (Institute of Physics, AN UkrSSR)

SUBMITTED: 24Feb64

ENCL: 00

SUB CODE: ME,NP

NR REF SOV: 005

OTHER: 003

Card2/2

GABOVICH, M.D.; ROMANYUK, L.I.; LOZOVAYA, Ye.A.

Formation of a quasi-neutral beam of accelerated ions in a plasma
emerging from an ion source. Zhur. tekhn. fiz. 35 no.1:94-100
Ja '65.

(MIRA 18:3)

1. Institut fiziki AN UkrSSR, Kiev.

L 41356-65 EWT(1)/EWP(e)/EWT(m)/EPF(c)/EPF(n)-2/ENG(m)/EPR/EPA(w)-2/T/EWP(t)/
EWP(b)/EWA(m)-2 Pab-10/Pr-4/Ps-4/Pu-4 IJP(c) JD/WH/JG/AT/WH
ACCESSION NR: AP3002130 S/0185/63/008/004/0707/0708 53
51
B

AUTHOR: Paderno, Yu. B.; Romanyuk, L. I.; Pomenko, V. S.

TITLE: Utilization of lanthanum hexaboride as the cathode of an ion source 21

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 8, no.6, 1963, 707-708 21

TOPIC TAGS: lanthanum hexaboride cathode, ion source

ABSTRACT: The suitability of lanthanum hexaboride as a cathode of an ion source with electron oscillations in a magnetic field was investigated. The LaB sub 6 powder was obtained through reduction of La sub 2 O sub 3 by boron in a vacuum of 10 sup -2 mm Hg at 1650C for 1 hr. The composition of the LaB sub 6 powder was as follows: La, 68.5%; B, 30.7%; and C, 0.11%. Tablets 6 mm in diameter and 1.5 mm thick were pressed from the powder. The tablets were cleaned and heated slowly up to 1800C in vacuum and held at this temperature for about 3 hr. Then they were slowly cooled and polished. The porosity of the tablets was 9 to 22%. During helium-7 discharge experiments, the discharge voltage, current, and magnetic field

Card 1/2

L 41356-65

ACCESSION NR: AP3002130

2

were 200 v, 1.5 amp, and 900 e, respectively. The density of discharge current on the cathode was 5.3 amp/cm sup 2. The density of ion current at the output of the source was 0.3 amp/cm sup 2. The life of the cathode was 30 to 40 hr. During discharge in hydrogen a similar current density, the cathode did not operate as stably as in helium, and its life was only 5 to 10 hr.

ASSOCIATION: Instytut fizyki AN URSR (Physics Institut AN URSR);
Instytut metalokeramiki i spetsplaviv AN URSR, Kiev (Institute of Powder Metallurgy and Special Alloys AN URSR)

SUBMITTED: 21Dec62

ENCL: 00

SUB CODE: NP,IQ

NO REF SOV: 002

OTHER: 001

ATD PRESS: 2027

Card 2/2

ROMANYUK, L.I., kand.tekhn.nauk; RABINOVICH, M.I., kand.tekhn.nauk

Problem of the thermal stability of lignite found in the Ukrainian
S.S.R. Trucy Inst.tepl.AN URSR no.10:53-57 '53. (MIRA 13:5)
(Ukraine--Lignite--Thermal properties)

Czechoslovakia/ Organic Chemistry - Naturally occurring substances
and their synthetic analogs

E-3

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11825

Author : Romanuk Miroslav, Herout Vlastimil, Sorm Frantisek

Title : On Terpenes. LXIX. Structure of Dehydrokostuslactone.

Orig Pub : O terpenech. LXIX. Konstituce dehydrokostuslaktanu. Chem. listy, 1955,
49, No 12, 1879-1885 (Czech); Sb chekhosl. khim. rabot, 1956, 21, No 4,
894-901 (English; Russian summaries)

Abstract : Dehydrokostuslactone (I) (from Saussurea lappa Clarke) yields on hydro-
genation a hexahydro-derivative (II), which was identified, by its in-
frared spectrum, as guaianolide (see RZhKhim, 1954, 27127). On dehydro-
genation of I gives hamazulene (III), while dehydrogenation of II
yields a mixture of S-guaiazulene (IV), Se-guaiazulene (V), III and
2,4-dimethyl-7-ethylazulene (VI). Ether solution of kostus oil was was-
hed with bicarbonate, saponified by boiling with NaOH, solution of the
salts washed with ether, and by acidification reconverted into lactone,
which was washed free from phenols with cold alkali; thus was obtained
I, BP 140-143°/0.5 mm, MP 61°, $[\alpha]_D^{20}$ - 12.9°. On hydrogenation of I

Card 1/2

Czechoslovakia/ Organic Chemistry - Naturally occurring substances
and their synthetic analogs

E-3

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11825

with PtO_2 in glacial CH_3COOH was obtained II, BP $135-137^\circ/0.4$ mm,
 n_D^{20} 1.5076, d_4^{20} 1.0545, $[\alpha]_D^{20} + 46.5^\circ$. 11.4 g II and 11.6 g Se
heated to $320-335^\circ$ and from the products was recovered, by chromatography on Al_2O_3 and extraction with 79% solution of H_3PO_4 , a mixture of azulenes which, by means of paper chromatography (impregnated with paraffin oil and washed with 48% H_3PO_4), was separated into IV, V, III, trinitrobenzolate MP 130° , and VI, trinitrobenzolate MP 112° . Presented are infrared spectra of I, II, VI, visible and ultraviolet spectra of VI.

Card 2/2

ACC NR: ARG035045

SOURCE CODE: UR/0058/66/000/008/D091/D091

AUTHOR: Vyshnevs'kyy, V. N.; Kulik, L. M.; Romanyuk, M. O.

TITLE: Optical properties of some alkali halide crystals in the spectral range 2000 to 800 Å

SOURCE: Ref. zh. Fizika, Abs. 8D707

REF SOURCE: Visnyk L'vivs'k. un-tu. Ser. fiz., no. 2, 1965, 32-34

TOPIC TAGS: optic property, crystallization, sodium iodide crystal, lithium fluoride crystal, single crystal, alkali halide crystal

ABSTRACT: The reflecting power of sodium iodide thallium and lithium fluoride single crystals have been measured in the energy field 6—15 ev. The effect of changes of the crystallization temperature and chemical activity of salts on their reflecting power is observed. [Translation of abstract] [NT]

SUB CODE: 20/

Card 1/1

L 38091-65 EWT(1)/T/EEC(b)-2 Pi-4 IJP(c) GG
 S/0185/65/010/002/0222/0223
 ACCESSION NR: AP5005917

AUTHOR: Vyshnevs'kyi, V. N.; Vus, Ya. M.; Kulyk, L. M.; Marchuk, Ye. P.; Romanuk, M. O. ²⁴
²⁷

TITLE: Determination of reflection spectra in the vacuum region of the spectrum

SOURCE: Ukrayins'kyi fizychnyy zhurnal, v. 10, no. 2, 1965, 222-223

TOPIC TAGS: reflection spectrum, ultraviolet, vacuum ultraviolet, spectrograph, potassium chloride, potassium bromide, single crystal

ABSTRACT: The article describes apparatus for the determination of the spectra of reflection from solids in the region of vacuum ultraviolet, using a DFS-5 spectrograph. The apparatus makes it possible to obtain the reflection spectrum for an angle of incidence of 45° in the entire 2000--500 Å range of the spectrograph. The apparatus is shown in Fig. 1 of the Enclosure. By way of an example, the authors show the reflection spectra of KCl and KBr single crystals in the 2000--1000 Å range. The results are in good agreement with the data of H. R. Phillip and H. Ehrenreich (Phys. Rev. v. 131, 2016, 1963). Whatever differences are observed are due to the increase in the reflecting ability of these crystals in the short wave

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L 38091-65

ACCESSION NR: AP5005917

region. A similar effect in this region of the spectrum at large angles of incidence is observed also for other substances by R. A. Knapp (Phys. Rev. v. 132, 1891, 1963). "We thank B. O. Belikovich for supplying the crystals." Crig. art. has: 2 figures.

ASSOCIATION: L'vivs'kyi derzhuniversytet im. I. Franka
(L'viv State University)

SUBMITTED: 11Sep64

ENCL: 01

SUB CODE: OP

NR REF SOV: 000

OTHER: 002

Card 2/3

ROMANYUK, M., sportsmen-parashyutist 1-go razryada

Parashute map of an airfield. Kryl. rod. 15 no. 8:29 Ag '64
(MIRA 18:1)

ACC NR: AP7003615

SOURCE CODE: UR/0185/66/011/012/1345/1349

AUTHOR: Vyshnevs'kyy, V. N. --Vishnevskiy, V. N.; Kulyk, L. M. --Kulik, L. N.;
Romanyuk, M. O. --Romanyk, N. A.

ORG: Lvov State University im. I. Franko (L'vivs'kyy derzhuniversytet)

TITLE: Structure of the fundamental absorption bands of mixed potassium chloride
and potassium bromide single crystals

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 12, 1966, 1345-1349

TOPIC TAGS: absorption band, potassium chloride crystal, potassium bromide
crystal, mixed crystal, ionic crystal, ion interaction

ABSTRACT: An investigation was made of the reflection spectra of a system of
mixed potassium chloride and potassium bromide single crystals in the region
2000—900 Å. The intensity of the long-wave fundamental absorption bands of "pure"
and mixed crystals was also estimated. The results of the investigation are com-
pared with the conclusions of the existing models of interaction of ionic crystals with
radiation. Orig. art. has: 2 figures and 1 table. [Authors' abstract] [NT]

SUB CODE: 20/SUEM DATE: 16Mar66/ORIG REF: 004/OTH REF: 025/

Card 1/1

ACC NR: AT6034606

(N)

SOURCE CODE: UR/3232/66/000/003/0099/0104

AUTHOR: Gayvoronskiy, Ya. S.; Rudnaya, A. I.; Romanyuk, N. A.; Silkina, T. S.

ORG: none

TITLE: A study of silicon photodiodes as the sensitive elements in pyrometers

SOURCE: L'vov. Politekhicheskiy institut. Kontrol'no-izmeritel'naya tekhnika, no. 3, 1966, 99-104

TOPIC TAGS: silicon diode, photodiode, radiation pyrometer, radiation sensitivity, temperature sensitive element

ABSTRACT: Pyrometers directly measuring a variable proportional to the change in parameters of the radiation receiver are widely used to solve problems in monitoring temperature regimes. Lead sulfide photoresistors, semiconductor photocells, and germanium and silicon photodiodes are used as the radiation receivers in these pyrometers. Silicon and germanium photodiodes are advantageously distinguished by their small size, simplicity, and high sensitivity. Especially promising are silicon photodiodes which can operate in ambient temperatures of 80° to +150°C and are insensitive to radiation energy at frequencies in the range of spectral absorption of water vapor and carbon dioxide gas. Because of the use of photodiodes in temperature sensors it became necessary to study the parameters and characteristics of photodiodes with respect to stability of photocurrent, spectral sensitivity, and photocurrent dependence on load resistance at various ambient temperatures. This paper studies

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ACC NR: AT6034606

silicon photodiodes of different designs and manufacturing technique in order to determine their use in radiation pyrometry. The results obtained indicate that silicon photodiodes made by the diffusion technique are most suitable for use in pyrometers directly measuring a signal because they are of good stability. The temperature error of diffusion photodiodes, which is greater than that of those made by the alloy technique, may be reduced by using proper light filters. The authors operate with the fundamental relationship defining short-circuit photodiode photocurrent as a function of the radiation energy of a black body at a certain temperature:

$$I_T = K \int_{\lambda_1}^{\lambda_2} b_{\lambda T}^0 \gamma_{\lambda} d\lambda, \quad (1)$$

where I_T is photocurrent at black body temperature T ; K is a constant depending on instrument design, and the other notation is standard. Orig. art. has: 3 formulas and 5 figures.

SUB CODE: 09/ SUBM DATE: none/ ORG REF: 003/ OTH REF: 001

Card 2/2

VISHNEVSKIY, V.N.; ROMANYUK, N.A.; STEFANSKIY, I.V.

Temperature dependence of birefringence dispersion in ammonium
dihydrophosphate crystals. Opt. i spektr. 18 no.5:838-841 My '65.
(MIRA 18:10)

SIL'VESTROVA, I.M., ROMANYUK, N.A.

Effect of ultraviolet radiation on the seignettelectric properties of triglycine sulfate crystals. Kristallografiia 5 no.1:147-150 Ja-F '60. (MIRA 13:7)

1. Institut kristallografii AN SSSR. (Glycine—Electric properties) (Ferroelectric substances)

ROMANYUK, N.A.; PIDZYRAYLO, N.S.

Changes in some of the dielectric and optical properties of
crystals of Rochelle salt due to hard radiation. Kristallografiia
9 no.6:870-875 N-D '64. (MIRA 18:2)

1. L'vovskiy gosudarstvennyy universitet i Institut kristallografi
AN SSSR.

ROMANYUK, N.A.; ZHELUDEV, I.S.

Changes in the domain structure of Rochelle salt crystals due to radiation. Kristallografiia 9 no.6:876-878 M-D '64. (MIRA 18:2)

1. L'vovskiy gosudarstvennyy universitet i Institut Kristallografi AN SSSR.

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; VUS, Ya.M.; KULIK, L.N. [Kulyk, L.M.]; MARCHUK, Ya.P. [Marchuk, IE.P.]; ROMANYUK, N.A. [Romaniuk, M.O.]

Reflection spectra in the vacuum region of the spectrum.
Ukr. fiz. zhur. 10 no.2:222-223 F '65. (MIRA 18:4)

1. L'vovskiy gosudarstvennyy universitet im. I. Franko.

L 52339-65 EEC(b)-2/EWT(1)/T P1-4 IJP(c) GG

ACCESSION NR: AP5012611

UR/0051/65/018/005/0838/0841

AUTHOR: Vishnevskiy, V. N.; Romanyuk, N. A.; Stefanskiy, I. V.

TITLE: Temperature dependence of the dispersion of birefringence of ammonium dihydrophosphate crystals 21

SOURCE: Optika i spektroskopiya, v. 18, no. 5, 1965, 838-841

TOPIC TAGS: ammonium dihydrophosphate, birefringence, dispersion, refractive index, temperature dependence ADP crystal, absorption dichroism

ABSTRACT: This is a continuation of an earlier study of the dispersion of the ordinary refractive index of ammonium dihydrophosphate crystals (ADP) (Opt. i spektr. v. 8, 736, 1960). The dispersion of the refractive index was determined by a diffraction method, using a set-up based on a DFS-8 spectrograph with diffraction grating of 1200 lines/mm. The source was a GSVD-120 lamp which has a continuous energy distribution in the spectrum. The polarizer was single-crystal Iceland spar. The samples were plane-parallel plates 0.15—1.20 mm thick, cut parallel to the crystal optical axis. The tests were made at wavelengths 280—750 nm and temperatures 20—100C. The samples were kept at the required temperature in a miniature

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L 52339-65

ACCESSION NR: AP5012611

oven. Spectral reference lines were produced with a mercury lamp. The temperature dependence of the dispersion of the birefringence was investigated from the spectrograms of Fresnel diffraction, taking into account the visually determined temperature shift of one of the extrema of the diffraction pattern and the coefficient of linear expansion of the sample. The results have shown that when the ADP crystal temperature increases the refractive index decreases for the ordinary ray and increases sharply for the extraordinary ray. The birefringence and its dispersion decrease markedly with increasing temperature. An empirical formula is derived for the dispersion curves at room temperature. The constants of the Sellmeyer formula are determined, and it is suggested on the basis of the results that dichroism of absorption exists in ADP crystals. Further research will be necessary to find out whether the two absorption bands differ in intensity or in position in the spectrum. Orig. art. has: 2 figures and 3 formulas. [02]

ASSOCIATION: . none

SUBMITTED: 20Mar64

NO REF SOV: 003

ENCL: 00

OTHER: 005

SUB CODE: OP

ATD PRESS: 4009

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